USGS
science for a changing world

Earthquake Shaking — Green Alert

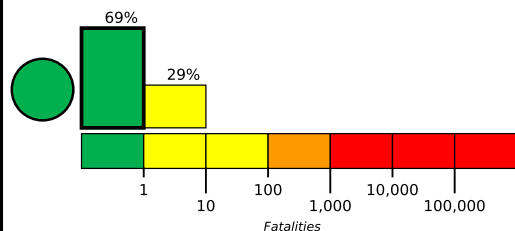GSN USAID FROM THE AMERICAN PEOPLE ANSS

PAGER
Version 4

M 4.0, 7 km ESE of Ojai, CA

Origin Time: 2023-11-03 20:12:17 UTC (Fri 13:12:17 local)
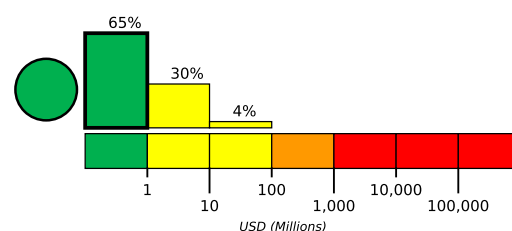Location: 34.4378° N 119.1661° W Depth: 5.0 km

Created: 3 weeks, 5 days after earthquake

Estimated Fatalities

69%
29%

1   10   100   1,000   10,000   100,000
Fatalities

Green alert for shaking-related fatalities and economic losses. There is a low likelihood of casualties and damage.
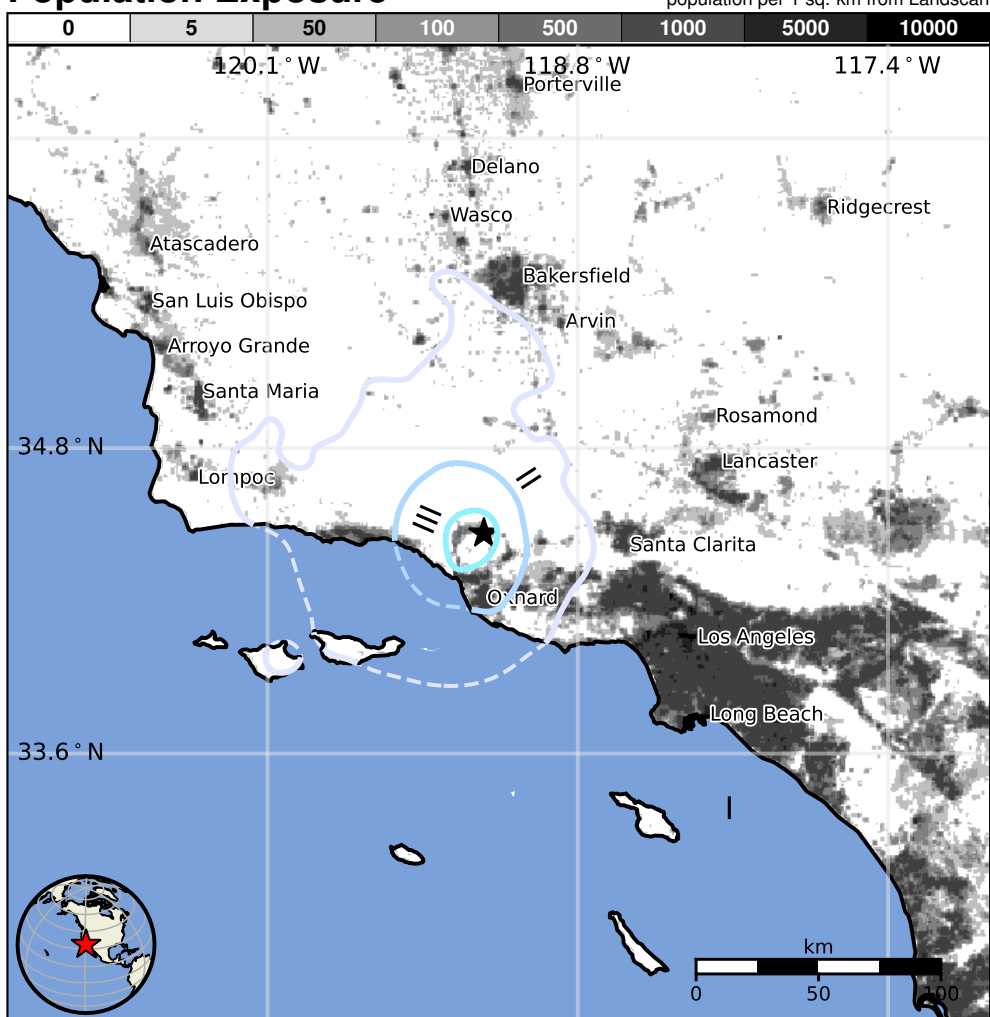
Estimated Economic Losses

65%
30%
4%

1   10   100   1,000   10,000   100,000
USD (Millions)

Estimated Population Exposed to Earthquake Shaking

ESTIMATED POPULATION EXPOSURE (k=x1000)		22,526k	1,341k	49k	0	0	0	0	0	0
ESTIMATED MODIFIED MERCALLI INTENSITY		I	II-III	IV	V	VI	VII	VIII	IX	X+
PERCEIVED SHAKING		Not felt	Weak	Light	Moderate	Strong	Very Strong	Severe	Violent	Extreme
POTENTIAL DAMAGE	Resistant Structures	None	None	None	V. Light	Light	Moderate	Mod./Heavy	Heavy	V. Heavy
	Vulnerable Structures	None	None	None	Light	Moderate	Mod./Heavy	Heavy	V. Heavy	V. Heavy

*Estimated exposure only includes population within the map area.

Population Exposure

population per 1 sq. km from Landscan

0	5	50	100	500	1000	5000	10000

Structures

Overall, the population in this region resides in structures that are highly resistant to earthquake shaking, though some vulnerable structures exist. The predominant vulnerable building types are unreinforced brick masonry and reinforced masonry construction.

Historical Earthquakes

Date (UTC)	Dist. (km)	Mag.	Max MMI(#)	Shaking Deaths
1991-06-28	108	5.6	VI(1,267k)	1
2003-12-22	217	6.6	VI(8k)	2
1971-02-09	71	6.6	IX(21k)	65

Recent earthquakes in this area have caused secondary hazards such as landslides and liquefaction that might have contributed to losses.

Selected City Exposure

from GeoNames.org

MMI	City	Population
IV	Ojai	7k
IV	Meiners Oaks	4k
IV	Mira Monte	7k
IV	Oak View	4k
IV	Ventura	97k
III	Saticoy	1k
I	**Bakersfield**	**347k**
I	Anaheim	336k
I	**Los Angeles**	**3,793k**
I	San Diego	1,307k
I	**Long Beach**	**462k**

bold cities appear on map.   (k = x1000)

PAGER content is automatically generated, and only considers losses due to structural damage. Limitations of input data, shaking estimates, and loss models may add uncertainty.
https://earthquake.usgs.gov/earthquakes/eventpage/ci39706674#pager

Event ID: ci39706674